



Harness-Container User Manual



(11.2018)

The information contained in this manual is time sensitive. Because the sport of fixed object parachuting (BASE jumping) is evolving rapidly, some of this information will change over time. Contact Apex BASE if you have any questions about your gear that are not addressed in this document.

!!! WARNING !!!

Parachuting is dangerous. You can be injured or killed while BASE jumping as others have, even when your equipment is used properly. It is your responsibility to prepare yourself and your family for any and all possible outcomes that may arise from your participation in this activity. Parachutes can malfunction even when they are properly designed, built, assembled, packed, maintained and used. The results of such malfunctions are sometimes serious injury or death. If you are unwilling to accept full and complete responsibility for your activity you may return unused equipment to Apex BASE for a complete refund (before use, and within 30 days of purchase). By keeping or using any equipment you are accepting full responsibility and agree not to take legal action or make claims against The Uninsured Basic Research Inc., DBA Apex BASE, its directors, owners, shareholders, officers, employees, designers, or suppliers.

Disclaimer – No Warranty

Because of the unavoidable danger associated with the use of parachute equipment, the manufacturer makes no warranty, either express or implied. The equipment is sold with all faults and without any warranty of fitness for any purpose. The manufacturer also disclaims any liability in tort for damages, direct or consequential, including personal injuries, resulting from a malfunction or from defect in design, material, workmanship, or manufacturing whether caused by negligence on part of the manufacturer or otherwise. By using this equipment, or allowing it to be used by others, the buyer, and/or user, waives any liability for personal injuries or other damages arising from such use. If the buyer declines to waive liability on the part of the manufacturer, the buyer may obtain a full refund of the purchase price by returning the equipment and all parts, before it is used, to the manufacturer within 30 days from date of delivery with a letter stating why the equipment was returned.

Apex BASE Harness-Container Systems

Description

All modern Apex BASE container systems are dual pin closed and designed to be used as part of a single parachute system. It is highly recommended that you seek proper training and instruction as to the correct assembly, packing, and use of this system before attempting to BASE jump.

Assembly

- 1. Closing Loops:** Your Summit/TL will come with the bottom closing loop and through loop pre-installed. Read "Closing the Container" below for more information about how to install your top flap closing loop.
- 2. 3-Ring Risers:** All Apex BASE 3-ring risers are reverse-facing, or "integrity" style risers. These risers have the advantage of being stronger, more durable, and less prone to wear from packing than forward facing 3-ring risers. *Please be aware that these risers are designed for BASE jumping only, and their use is not recommended in the skydive environment.*

If you chose to have your container built with 3-ring risers the risers will come uninstalled, while your cutaway handle will come pre-installed. To install the risers:

- a.** Risers should be assembled onto the container with the toggle keepers to the inside (inboard, mirror imaging each other).



- b.** Grasp right riser (maintaining continuity) and pass the medium riser ring through the right side large harness ring. This must be done so that the riser stays in front of the harness ring.
- c.** Rotate the medium riser ring around the large harness ring toward the small riser ring. Be sure to pass ONLY the medium riser ring through the large harness ring.
- d.** Pass the small riser ring through the medium riser ring and rotate it toward the white loop. Be sure to pass the small riser ring through the medium riser ring ONLY.
- e.** Pass the white loop through the center of the small riser ring ONLY.
- f.** Fold the Type 4 tape with the grommet (affixed to the riser) toward the white loop. Pass the white loop through the grommet. Locate the right cable housing grommet. Pass the white loop through the cable housing grommet.
- g.** Insert the yellow cutaway cable through the white loop. Stow excess cable into the channel on the riser.
- h.** Repeat for the left side. Check both sides for proper assembly.



This image shows a correct 3-ring assembly.

- 3. Bridle:** A 2 pin bridle will come as part of your harness-container system and must be properly assembled to your canopy.
- a.** If you are using a Multi-2 system, be sure to correctly assemble the Multi-2 lines to your canopy using larks head knots. The Type 4 (1 inch) Tape will be assembled to the canopy main attachment point. The Dacron line will assemble to the Multi-2 attachment point which is aft of the main attachment point toward the tail of the canopy.
 - b.** Locate the loop on the bridle end closest to the pin side of the bridle. Pass this loop through the main bridle attachment point on your canopy, or connector loops on the Multi-2 lines.



Multi-2 Bridle Attachment: Connect the Multi-2 components to your canopy using a larks head knot.



Multi-2 Bridle Attachment: Connect the bridle to your Multi-2 system components using a single larks head knot.

- c. Pass the remaining bridle through the same loop creating a larks head knot.
- d. *NOTE: If you are not using the Multi-2 Tail Pocket Support System on your Apex BASE canopy be sure to affix the bridle ONLY to the main attachment point and NOT the Multi-2 attachment point. The main attachment point is closer to the nose of your canopy, and the Multi-2 attachment point is toward to the tail of the canopy.*



If you are not using your Multi-2 System be sure to connect your bridle ONLY to the main attachment point, and not the Multi-2 attachment point.

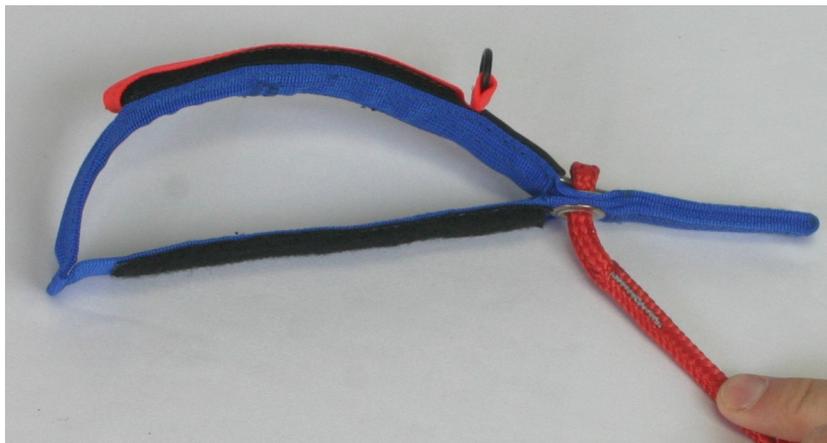
- 4. **EZ Grab Toggles:** Your toggles will need to be assembled to your canopy control lines. Depending on whether you'll be jumping with or without a slider there are a few different ways to route your control lines and we recommend that you educate yourself about these options. To attach your toggle to the control line pass the control line

through the toggle grommet from the velcro side and then pass the bottom of the toggle through the toggle setting in the control line. Pull the line taught and make sure your toggle is securely attached to the line. For more information on Apex BASE canopies that have two toggle settings, see [THIS ARTICLE](#).



5. WLO Toggles: WLO Toggles should be used when jumping slider up and are easily assembled to your canopy control lines. Pull down the velcro lanyard on the front of the toggle until the pin is pulled far

enough below the grommet to allow your control line to pass through. Pass the control line through the toggle grommet from the velcro side (rear side from the jumpers perspective) and pass the pin through the toggle setting on the control line. Make sure the pin is fully seated and the control line is securely assembled to the toggle. Re-mate the lanyard velcro on the front of the toggle and re-stow the retainer tab.



Packing

When packing your Summit/TL you can use any of the common "PRO" (Proper Ram-Air Orientation) packing methods for BASE. We recommend seeking out training with regard to packing techniques as there are a wide range of packing methods and styles, though most are similar with minor differences. Some important considerations are:

- 1.** To achieve the lowest profile and most compact pack job, we recommend using the through loop. The top flap loop is easier to close, but will not produce a closed container with the lowest possible profile. Through loop closure is recommended for high airspeed jumps (terminal, tracking, wingsuit).
- 2.** For slider up jumps we recommend using WLO Toggles. Line release toggles are an important safety innovation for slider up jumps.
- 3.** For slider off jumps we recommend using EZ Grab Toggles or disabling the line release function on your WLO Toggles.
- 4.** Depending on whether you'll be jumping with or without a slider there are a few different ways to route your control lines and we recommend that you educate yourself about these options.
- 5.** Apex BASE recommends using a tailgate on all BASE jumps, slider up or slider off. Extra caution should be taken when using a large mesh slider and tailgate in order to ensure they do not interact with one another during canopy deployment.
- 6.** Line stows should be very neat and staged properly. When stowing your lines inside the tail pocket your stows should start off relatively large and toward the top of the tail pocket. As you pull your container toward the canopy your line stows should decrease in size and be set closer to the mouth of the tail pocket. Set your line stows up for success, and be sure to stage them in such a way that they exit the tail pocket in the proper order. Messy line stows can create bottlenecks near the tail pocket mouth which can result in friction, heat, damage to your equipment, and possibly even a malfunction such as "line dump" or others.



- 7. Sliders:** Choose the appropriate slider type for your jump. Apex BASE offers Large Mesh, Small Mesh, Slow, and Sail Sliders. Educate yourself about slider use and packing techniques.

- 8. Pin Protector Flap:** All Apex Harness-Container systems are designed with modularity in mind. We believe that you should be able to optimize your system for your intended jump. With this in mind, a plastic Stiffener Insert is included for use in your Pin Protector Flap and comes pre-installed. This insert helps ensure that the Pin Protector Flap stays closed in freefall/flight and should be used on high airspeed jumps (terminal, slider up, tracking, and wingsuit). When jumping slider off at low airspeeds it is recommended that you remove this stiffener insert from the Pin Protector Flap and store it in the accessory pocket behind your pack tray. The Stiffener Insert should be installed/removed only on unpacked harness-containers.

- 9.** When your container is closed your Pin Protector Flap should appear rectangular in shape, with your side flaps running parallel to one another as shown below. A closed container which results in a Pin Protector Flap that is "wedge shaped" will not be as secure even when

the plastic stiffener is used. Be sure to close your container evenly, and as tightly as safe packing methods will allow in order to ensure maximum security for your Pin Protector Flap and Bridle.



10. More packing information can be found within our [Instructional Packing Videos](#).

Closing the Container

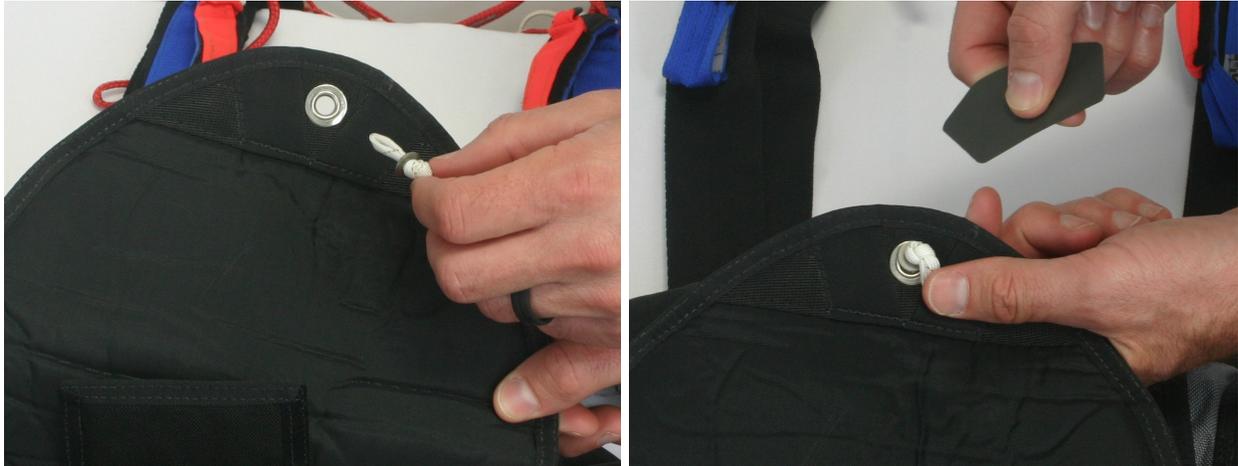
Closing loops should be made of Type 2a nylon and a proper length with respect to your packing style and canopy volume.

Your final bridle routing and pin orientation should be as shown in the photo below. The following steps will help you get there:



1. Coming from the canopy, and out of the container, your bridle should pass between the two closing loops/grommets.
2. Insert a pull up cord in the closing loop located on the bottom flap.
3. Pass the pull up cord through the bottom left side flap grommet (the flap with the pin protector flap affixed to it), and pull taut. Then pass the pull up cord through the bottom right side flap grommet, and pull taut until the closing loop passes through all of the above grommets and is accessible.
4. Place the second curved pin (coming from the canopy) through the bottom closing loop. This is also commonly referred to as the "bottom pin."
5. Insert a pull up cord in the closing loop located on the **top flap closing loop or through loop** (mounted on the tray of the container). Pass a pull up cord through the top left side flap grommet, and pull taut. Then pass the pull up cord through the top right side flap grommet, and pull taut. Place the remaining curved pin (also commonly referred to as the "top pin") through the top closing loop.

- a. Top Flap Closing Loop:** Use a short closing loop in the top flap. Your Summit/TL came with a small plastic insert which can be inserted into the pockets behind the top flap grommet to hold your closing loop in place.



- b. Through Loop Closure:** Use a long closing loop installed behind the pack tray. Note that this closing loop can remain in place even when using top flap closure, but the top flap loop must be removed in order to utilize through loop closure. When using the through loop many jumpers find it easier to start packing with a pull up cord already in the loop for easier access.



- 6.** To be clear: The closing order is:
- a.** Top/Bottom flaps first.
 - b.** Left flap (with the pin protector flap affixed to it) second.
 - c.** Right flap (opposite the pin protector flap) last.



- 7.** Tuck the Bottomless Corners in, folding them vertically along the side walls of the container
- 8.** There should always be a small amount of slack present in the bridle between your closing pins. Make sure to mate the velcro on the bridle and neatly fold the slack between your pins when closing the pin protector flap. This slack is intended to allow your pins to extract in the proper sequence.
- 9.** Pin orientation should be as pictured above, with the pins aligned vertically and the pin ends facing toward the right side flap and clear of the bridle itself.
- 10.** Excess bridle between your BOC and bottom pin can be tucked into the bridle cover on the bottom flap, under the right side closing flap.

Bottomless Corners

Your bottomless corner tabs should be tucked into the container vertically. Be sure that they are sitting against the sidewall of your container cleanly and not interfering with the canopy.

Packing Your Pilot Chute

There are a variety of ways to pack your PC. Different delays, different jump types, and different PC types will all be factors in how you're able to most cleanly, efficiently, and safely stow your PC during a jump. We recommend seeking out proper instruction in regard to the many different options you have here as a jumper.

Friction Adaptors

Be sure that your chest strap and both leg straps are routed properly, tightened appropriately, and that the excess is stowed neatly. You only have three straps keeping you inside your harness, none of them are optional.



D30 Back Protection

If you ordered your container new with the D30 option it will come pre-installed. You can find it behind the pack tray in the same area as the accessory pocket for your extra closing loops and plastic inserts. The D30 pad can be easily removed and inserted while your container is unpacked.



Packing With Dual Through Loops

Dual Through Loops are an option on TL containers. For more information and instruction about using dual through loops see our instructional packing videos [HERE](#).

Maintenance

Apex harness-container systems have several points of inspection and a few points of common maintenance. The entire system (including risers, toggles, and any other modular components) must be inspected before each pack job. Inspect all webbing, hardware, grommets, loops and stitching. Inspect

everything you can see. Look more closely for the things you can not see as easily during normal packing. The bridle has some Velcro, the cutaway handle (on 3-ring systems) also has Velcro. Velcro will wear out due to use so be sure to replace as necessary. The spandex on the BOC may become stretched out over time and use. If the Spandex is stretched out and/or damaged then it is potentially dangerous and should be replaced. All grommets should be burr free, meaning the inner passage of the grommet should be smooth and free of sharp edges that may cut the loops that pass through the grommet. The bridle and curved pins must be inspected. Look for wear on both ends of bridle as well as the curved pin retainer tabs and stitching. Please be aware that bridles can be damaged during static line jumps and should be inspected frequently. The cutaway cables must be clean and free of any burrs that may damage or become stuck on a riser loop. Any major repair involving the harness or container must be returned to Apex BASE for quality assurance. Use only Apex BASE replacement parts. Closing loops must be replaced when worn, do not wait for a closing loop to fail. Replace it before it creates an unsafe situation. Replacement loops should be made with Type 2a nylon.

If you are unsure of your systems condition it can be returned to Apex BASE for an inspection. Never jump any gear unless you are completely confident in its airworthiness.

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Never hesitate to contact us with questions or comments about our gear. We stand behind all of our products.

All Apex BASE products are designed and built in the USA.

